

Claims

[c1] We claim as our invention:

1. A golf club head comprising:
a face component composed of a first material, the face
component including a striking plate portion and a re-
turn portion, the return portion extending a distance
ranging from 0.25 inch to 1.5 inches from a perimeter of
the striking plate portion; and
an aft-body coupled to the return portion of the face
component, the aft-body being selected from a plurality
of aft-bodies, each of the aft-bodies being composed of
a second material having a density less than that of the
first material, each aft-body including at least one
weight member and having a center of gravity location
different from the other aft-bodies.

[c2] 2. The golf club head according to claim 1 wherein the
first material is a metal material and the second material
is a non-metal material.

[c3] 3. The golf club head according to claim 2 wherein the
each of the aft-bodies is composed of plies of pre-preg
material.

- [c4] 4. The golf club head according to claim 1 wherein the first and second materials are metal materials.
- [c5] 5. The golf club head according to claim 4 wherein the second material is selected from the group consisting of magnesium and aluminum.
- [c6] 6. The golf club head according to claim 1 wherein the first material is selected from the group consisting of titanium alloy, amorphous metal, stainless steel and maraging steel.
- [c7] 7. The golf club head according to claim 1 wherein the return portion of the face component includes at least an upper lateral section and a lower lateral section, and wherein the aft-body includes a crown portion and a sole portion, the upper lateral section of the return portion being coupled to the crown portion of the aft-body, and the lower lateral section of the return portion being coupled to the sole portion of the aft-body.
- [c8] 8. The golf club head according to claim 1 wherein the aft-body includes a crown portion and a sole portion, the sole portion having a bottom section and a ribbon section, the ribbon section being located between the crown portion and the bottom section of the sole portion, and wherein the at least one weight member is lo-

cated along the ribbon section.

- [c9] 9. The golf club head according to claim 8 wherein the ribbon section of the aft-body is substantially vertical.
- [c10] 10. The golf club head according to claim 1 wherein the at least one weight member has a density ranging from 7 grams per cubic centimeters to 12 grams per cubic centimeters.
- [c11] 11. The golf club head according to claim 1 wherein each of the plurality of aft-bodies has a mass substantially equal to that of the other aft-bodies.
- [c12] 12. The golf club head according to claim 1 wherein the aft-body attached to the face component results in the golf club head having a heel bias center of gravity location.
- [c13] 13. The golf club head according to claim 1 wherein the aft-body attached to the face component results in the golf club head having a neutral bias center of gravity location.
- [c14] 14. The golf club head according to claim 1 wherein the aft-body attached to the face component results in the golf club head having a toe bias center of gravity location.

- [c15] 15. The golf club head according to claim 1 wherein striking plate portion of the face component has a thickness ranging from 0.010 inch to 0.250 inch and the return portion has a thickness ranging from 0.010 inch to 0.250 inch.
- [c16] 16. The golf club head according to claim 15 wherein the striking plate portion has concentric regions of varying thickness with the thickest region in about the center.
- [c17] 17. The golf club head according to claim 1 wherein the golf club head has a moment of inertia, I_{ZZ}, greater than 3000 g·cm² and a moment of inertia, I_{YY}, greater than 2000 g·cm², wherein the moments of inertia are defined by the vertical axis Z through the center of gravity of the golf club head, a horizontal axis Y through the center of gravity of the golf club head and substantially parallel to the striking plate portion, and a forward to rearward axis X through the center of gravity of the golf club head, the X-axis, the Y-axis and the Z-axis being orthogonal to each other.
- [c18] 18. A golf club head having a center of gravity location suited for a particular golfer, the golf club head comprising:
 - a face component composed of a first material, the face

component including a striking plate portion and a return portion, the return portion extending a distance ranging from 0.25 inch to 1.5 inches from a perimeter of the striking plate portion; and
an aft-body coupled to the return portion of the face component, the aft-body being selected from a plurality of aft-bodies, each of the aft-bodies being composed of a second material having a density less than that of the first material, each aft-body including at least one weight member,
wherein the plurality of aft-bodies includes a first aft-body to provide the golf club head with a neutral bias center of gravity location, a second aft-body to provide the golf club head with a toe bias center of gravity location, and a third aft-body to provide the golf club head with a heel bias center of gravity location, and
wherein the aft-body selected provides the golf club head with the center of gravity location suited for the golfer.

- [c19] 19. The golf club head according to claim 18 wherein the first material is a metal material and the second material is a non-metal material.
- [c20] 20. The golf club head according to claim 18 wherein the first and second materials are metal materials.

- [c21] 21. The golf club head according to claim 18 wherein the aft-body includes a crown portion and a sole portion, the sole portion having a bottom section and a ribbon section, the ribbon section being located between the crown portion and the bottom section of the sole portion, and wherein the at least one weight member is located along the ribbon section.
- [c22] 22. The golf club head according to claim 21 wherein the ribbon section of the aft-body is substantially vertical.
- [c23] 23. The golf club head according to claim 18 wherein each of the aft-bodies has a mass substantially equal to that of the other aft-bodies.
- [c24] 24. The golf club head according to claim 18 wherein the golf club head has a moment of inertia, I_{zz}, greater than 3000 g·cm² and a moment of inertia, I_{yy}, greater than 2000 g·cm², wherein the moments of inertia are defined by the vertical axis Z through the center of gravity of the golf club head, a horizontal axis Y through the center of gravity of the golf club head and substantially parallel to the striking plate portion, and a forward to rearward axis X through the center of gravity of the golf club head, the X-axis, the Y-axis and the Z-axis being orthogonal to each other.